WHAT IS CLAIMED IS:

1.   A method of changing values of a range of consecutive keys in an original B-tree having a plurality of keys stored therein, comprising:

excising the range of consecutive keys from the original B-tree, the excision of the range of consecutive keys converting the original B-tree into a trimmed tree;

storing the range of consecutive keys excised form the B-tree to form an extracted tree;

changing the values of the keys of the extracted tree to form a modified extracted tree; and

inserting the modified extracted tree into the trimmed tree to form a final B-tree.

2.   A method as in claim 1, wherein the original B-tree represents a hierarchical namespace.

3.   A method as in claim 2, wherein the original B-tree represents a hierarchical namespace of a file system, and the range of consecutive keys belong to a directory of the file system, and wherein the changing of the values of the range of consecutive keys is in connection with the directory being renamed.

4.   A method as in claim 3, wherein each key in the original B-tree contains a pathname for a file or directory of the file system prior to the renaming of the directory.

5.   A method as in claim 1, including the step of balancing the trimmed tree prior to the step of inserting.

6.   A method as in claim 1, wherein the step of inserting includes balancing the final B-tree.

7.   A method as in claim 1, wherein the step of changing includes changing a prefix field of a root node of the extracted tree.

8.   A method as in claim 1, wherein the step of inserting the modified extracted tree into the trimmed tree involves a strict insertion.

9.   A computer-readable medium having computer-executable instructions for performing steps for changing values of a range of consecutive keys in an original B-tree having a plurality of keys stored therein, comprising:

excising the range of consecutive keys from the original B-tree, the excision of the range of consecutive keys converting the original B-tree into a trimmed tree;

storing the range of consecutive keys excised form the B-tree to form an extracted tree;

changing the values of the keys of the extracted tree to form a modified extracted tree; and

inserting the modified extracted tree into the trimmed tree to form a final B-tree.

10.   A computer-readable medium as in claim 9, wherein the original B-tree represents a hierarchical namespace.

11.   A computer-readable medium as in claim 10, wherein the original B-tree represents a hierarchical namespace of a file system, and the range of consecutive keys belong to a directory of the file system, and wherein the changing of the values of the range of consecutive keys is in connection with the directory being renamed.

12.   A computer-readable medium as in claim 11, wherein each key in the original B-tree contains a pathname for a file or directory of the file system prior to the renaming of the directory.

13.   A computer-readable medium as in claim 9, having further computer-executable instructions for performing the step of balancing the trimmed tree and extracted tree prior to the step of inserting.

14.   A computer-readable medium as in claim 9, wherein the step of inserting includes balancing the final B-tree.

15.   A computer-readable medium as in claim 9, wherein the step of changing includes changing a prefix field of a root node of the extracted tree.

16.   A computer-readable medium as in claim 9, wherein the step of inserting the modified extracted tree into the trimmed tree involves a strict insertion.

17.   A method of modifying a B-tree representing a file system in connection with renaming a directory in the file system, comprising:

excising keys of the directory being renamed from the B-tree, the excision of the keys of the directory converting the B-tree into a trimmed tree;

storing the keys of the directory excised form the B-tree in an extracted tree;

changing the values of the keys of the extracted tree to reflect a new name of the directory; and

inserting the extracted tree with changed values of the keys into the trimmed tree to form a final B-tree.

18.   A method as in claim 17, wherein each key in the B-tree contains a pathname for a file or directory of the file system.

19.   A method as in claim 17, including the step of balancing the trimmed tree prior to the step of inserting.

20.   A method as in claim 17, wherein the step of inserting includes balancing the final B-tree.

21.   A method as in claim 17, wherein the step of changing the values of the keys of the extracted tree includes changing a prefix field of a root node of the extracted tree.

22. A computer-readable medium having computer-executable instructions for performing steps for modifying a B-tree representing a file system in connection with renaming a directory in the file system, comprising:

excising keys of the directory being renamed from the B-tree, the excision of the keys of the directory converting the B-tree into a trimmed tree;

storing the keys of the directory excised form the B-tree in an extracted tree;

changing the values of the keys of the extracted tree to reflect a new name of the directory; and

inserting the extracted tree with changed values of the keys into the trimmed tree to form a final B-tree.

23. A computer-readable medium as in claim 22, wherein each key in the B-tree contains a pathname for a file or directory of the file system.

24. A computer-readable medium as in claim 22, having computer-executable instructions for performing the step of balancing the trimmed tree and extracted tree prior to the step of inserting.

25. A computer-readable medium as in claim 22, wherein the step of inserting includes balancing the final B-tree.

26. A computer-readable medium as in claim 22, wherein the step of changing the values of the keys of the extracted tree includes changing a prefix field of a root node of the extracted tree.